

# ANDREWS MECHANICAL, INC.

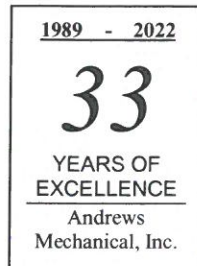
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Dear members of the State Building Code Council. I would ask not to approve or move forward with 066 heat pump mandates for water heating here are 11 reasons why not to approve.

1. This would violate RCW19.27.020 (1) To require **minimum performance standards and requirements for construction materials**, with accepted standards of engineering, fire and life safety. (4) **To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods.**
2. The current power output is not available for this extra load. There have not been any power plants put online in the last 5 years if fact power plants have been shut down making less power being made then before. So how does one ask for more power to use with less then you have before?
3. The electrical grid can't handle this kind of extra load we are already having brown outs. Which if happen in extreme cold weather conditions would kill many people like what happened in Texas. The existing power supply wiring and poles from power plants cannot handle the extra load and will not for the next 50 years.
4. By increasing the electric load is going to require massive overhaul of the electrical system causing electrical rates to go from .10 cent kilowatt to over .30 cent a kilowatt causing your power bill to be more than your rent payment or house payment. This has already happened in California. Where are people going to get this type of money?
5. Cost of \$450,000.00 study sponsored by Alex Ramel to convert Western Washington University to green energy came back that this is not possible without the use of Natural gas being used. Which would cost \$500,000,000.00 to convert the campus, that is just one college campus. Still requires natural gas. To protects the students and worker community.
6. The heat pump refrigerant that are being used now to run the heat pumps has a global warming coefficient of 1500 where Natural gas is only 80 and when burned is 1. The release of this refrigerant would cause and is causing global warming at a much greater rate then Natural gas. If you look when this warming started this coincides with the change to this new refrigerant which holds heat 1500 times more than combustion product of



Natural gas. The refrigerant R134A which is used in most water heater heat pumps today was also used in spray cans, Cars A/C was when 1<sup>st</sup> produced was not required to be reclaimed in fact, we were told that it posed no harm to the environment and was even sold at Costco stores to everyone. So, billions of pounds were released to the atmosphere with no thought there was a problem because the government said it was safe. Barack Obama was president in 2010 when R134A came in use. Remember this Refrigerant R134A, this was to take care of all the problems we had before with the R502 and R12. The Government said No need to reclaim this refrigerant. My Company didn't listen to government and reclaim the refrigerant even back then. You must remember when you release R134A refrigerant to the atmosphere through a leak in a heat pump system or when a spray can is used. This refrigerant will be in our atmosphere for at least 30 years. So, when I think this council wants to require heat pumps for our state, it just makes me shutter that we are going have to put up with 30 more years of this refrigerant. After the heat pump is put out of service.

7. Natural gas is the only fossil fuel that is lighter than air and thus is released from the earth every day 24 hours per day and since from at least 2000 years ago. When Natural gas is released its global warming potential is 80 but when burned is only 1. Remember there is no way to stop this release it happens in are lakes, rivers, and all over the ground. Native Americans tell us about fire on top of the water this is natural gas burning. So, there is no way to stop this release from happening other then burning it and using it and dropping its combustion product which global warming potential to 1. So, I ask you which is better a Global warming potential of 80 or 1? You must remember as the oil and coal are under the earth which will not vent to the atmosphere as natural gas does which is better to use? Then one last thought is when all this oil and coal which is under the earth and the earth always' s try to fill in any gaps in the earth, which is under extreme pressure and temperature what do think will happen to the coal and oil under extreme pressure and temperature? Well, I will tell you it will start to gas off, some of it will gas off and become Natural gas. It is physics, and you can't change physics.
8. The Recover time for these hybrid electric water heaters is over double the time of gas water heater. With standard gas water heater, you can shower all day long with one shower head and with an electric or electric hybrid that is not possible you will run out of hot water in less than an hour. The noise that these hybrid's water heaters make which run most of the day is very bothersome to owners and renters.
9. These code changes are going to make any affordability of homes out the door for housing due to cost to install heat pumps, then maintain them and finally the replacement in a 50-year cycle to double the cost of a natural gas equipment.
10. Most people don't like heat pumps heat in cold climates due to drafty feeling that you get from them. When you have to pay to heat your home then the heat from your home has to go into the hybrid water heater which is costly if you are now, you're heating your home with electricity as this new code would require. Hybrids water heater are more expensive to run due to the fact that, you have to pay two times for the energy, 1<sup>st</sup> to get the heat into your home, then to get the heat from your house into the water heater with the hybrid unit, in a cold climate. **The energy factory does**

not show this in their calculation. In the energy calculation used in there rating is based that there is no cost for the energy to get into the house. This is totally wrong in a cold climate.

11. With the CO<sub>2</sub> that is part of the combustion product of Natural gas roughly 9% of the combustion product being CO<sub>2</sub> with water vapor being most of the combustion product and some oxygen. Now that you have about 9% CO<sub>2</sub> coming out of the combustion product it gives enough CO<sub>2</sub> that you make products listed below. It takes much more air with CO<sub>2</sub> when your only at 405PPM CO<sub>2</sub> to make these products. There are companies like the 12 Company making products from that CO<sub>2</sub> like door panels in Mercedes Benz cars, eye glass lens and frames and jet fuel. Thus, reducing CO<sub>2</sub> in the atmosphere. Natural gas is not the problem. Please don't limit natural gas appliances when we have companies like 12 Company that are providing means to remove CO<sub>2</sub> from the atmosphere. As soon as the 12 Company gears up, CO<sub>2</sub> will leave the atmosphere in much greater volumes.

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